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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/800,111	03/12/2004	Mark R. Ayres	495812005700	8922
25226	7590	09/13/2006		
MORRISON & FOERSTER LLP 755 PAGE MILL RD PALO ALTO, CA 94304-1018			EXAMINER WYATT, KEVIN S	
			ART UNIT 2878	PAPER NUMBER

DATE MAILED: 09/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/800,111		AYRES, MARK R.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Kevin Wyatt		2878	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 01 July 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### DETAILED ACTION

1. This Office Action is in response to the Amendment after non-final and remarks filed on 06/22/2006. Currently, claims 1-32 are pending.

#### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-4,6,7,14-20, 24-26 and 29, as understood by the examiner, are rejected under 35 U.S.C. 102(b) as being anticipated by Migeotte U53688235.

With respect to claim 1, Migeotte discloses a system and a method for measuring a characteristic of an optical article (12), comprising: a light source (1) for producing light; an optical element (6) for focusing the light along a probe path g) to a reference location (location of the optical article) associated with an expected position of the optical article; a sensor (24,28) for detecting the light interacted with the optical article, wherein the sensor generates signals associated with an intensity(detected by 28) and position (detected by 24) of the light received; and a processor(34), wherein the processor is configured to received the signals from the sensor and determine a deflection angle and a direction of the deflection angle of the light from the probe path (read col.4, lines

13-36).

With respect to claim 2, per the above discussion, Migeotte discloses the reference location is associated with an expected position of a surface of the optical article (see fig.1).

With respect to claim 3, per the above discussion, Migeotte discloses the reference location is associated with an expected position the optical article (see fig.1).

With respect to claim 4, per the above discussion, Migeotte discloses moving and holding means (55, read col.5, lines 38-40) for translating an optical article relative to the light source and the probe path in at least one dimension.

With respect to claim 6, per the above discussion, Migeotte discloses the processor is configured to determined a characteristic of the optical article based on the deflection angle of the light at multiple locations (a small portion of the optical article, read co1.8, lines 17-32) of the optical article.

With respect to claim 7, per the above discussion, Migeotte discloses the characteristics includes flatness or the bending angle or the deflection angle of the optical article (see col.2 lines 44-65).

With respect to claim 14, per the above discussion, Migeotte discloses a second optical element (15) positioned to focus the light beam from the reference location to a pinhole filter (20,26) between the second optical element and the sensor.

With respect to claim 15, per the above discussion, Migeotte discloses the second optical element and pinhole filter are disposed in a confocal imaging

configuration.

With respect to claim 16, per the above discussion, Migeotte discloses the sensor is positioned to detect light passing through the reference location (see fig.1).

With respect to claim 17, per the above discussion, Migeotte discloses the sensor (28) is positioned to detect the light reflected from the reflection location.

With respect to claim 18, Migeotte discloses a method for measuring a characteristic of an optical article (12), comprising: illuminating an optical article with a focused beam of light along a probe path; detecting the light with a sensor after the light interacts with the optical article; determining a deflection angle and a direction of the deflection angle of the beam of light with respect to the probe path after interacting with the optical article; and determining a characteristic of the optical based on the deflection angle (read col.4, lines 13-36).

With respect to claim 19, per the above discussion, Migeotte discloses scanning multiple positions of the optical article with focused beam of light to determine deflection angles at multiple positions of the optical article (read col.5, lines 37-59).

With respect to claim 20, per the above discussion, Migeotte discloses using multiple deflection angles to determine a characteristic of the optical articles (angularity at different portions of sheet 12).

With respect to claim 24, per the above discussion, Migeotte discloses confocally imaging the light after the light interacts with the optical article (see fig.1).

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With respect to claim 25, per the above discussion, Migeotte discloses the light is confocally filtered after the light interacts with the optical article (see fig.1, filters 20,26)

With respect to claim 26, Migeotte discloses a method for measuring a characteristic of an optical article (12), comprising: scanning an optical article with a focused beam of light; detecting a deflection angle and a direction of the deflection angle of the focused beam of light from the optical article at multiple scan position (read col.5, lines 37-59); and determining a characteristic of the optical article based on the deflection angles at the multiple scan positions (detection angularity of the optical article at different portions).

With respect to claim 29, per the above discussion, Migeotte discloses the focused beam of light from the optical article passes through a confocal imaging system (17,20,26).

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 5, 8,9,27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Migeotte U53688235.

With respect to claims 5,27 and 28, per the above discussion, although

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Migeotte disclose suitable moving and holding means) but Migeotte lacks a clear teaching of whether or not the means is for translating the optical article relative to the light source and the probe path in three dimensions. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Migeotte by making the moving and holding means move the optical article in three dimensions for desired adjustable placements of the optical article in order to provide a flexible system in examining various portions and/or zones of the optical articles. Further citations in claims 27 and 28, regarding the scanning direction in three dimension direction and/or any other direction, it would have been obvious for similar reasons set forth in the discussion above.

With respect to claims 8 and 9, per the above discussion, Migeotte disclose the detection of a transmission properties of the article/element but lacks a clear teaching of the properties include an index of refraction value. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Migeotte by including index of refraction of the optical article and/or transparent objects in order to enable the system to acquire more optical information and/or the optical properties of the optical article. Further citations in claim 9, regarding stored information would have been obvious for similar reasons set forth in the discussion above.

Claims 21-23 and 30-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Migeotte U53688235 in view of Klein et al U56134011.

With respect to claims 21-23 and 30-32, per the above discussion, Migeotte lacks a clear teaching of producing a surface relief pattern and/or a

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volumetric index map and/or an equivalent single surface plot from the multiple deflection angles.

Klein et al disclose evaluating the topography and thickness or optical characteristics (col.3, lines 65-67, col.4, lines 1-6) of an optical article (5). Klein et al also disclose the reflectance measurements are made to compile a second map, or a comparative reflectance map of the optical article (read col.6, lines 60-65). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Migeotte by deriving any maps and/or patterns and/or plot for the measurement results of the deflection angles information from each zones and/or portions of the optical articles, as taught by Klein et al, in order to provide a thorough analysis of the characteristics of the optical article for examination, if so desired.

Claims 10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Migeotte US3688235 in view of Fanton et al US5181080.

With respect to claims 10-13, per the above discussion, Migeotte fails to teach the sensor is a quadrant photodetector. Fanton et al disclose a method and/or system utilizing a quadrant detector (a position sensitive detector having at least two segments, see fig.2) and the basic operation of the quadrant detector (read col.2, lines 45-64) such that the power of a beam is measured by a photodetector along two orthogonal axes. Also Fanton et al disclose each quadrant of the quadrant detector will generate an output signal proportional to the magnitude of the power of the beam striking the quadrant (read col.4, lines 35-50). It would have been obvious to one of ordinary skill in the art at the time of



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the invention to modify Migeotte by utilizing a quadrant photodetector taught by Fanton et al in order to promote accuracy of the direction/reflection/angularity measurement results from the system as well as providing a detailing of the basic operation of a quadrant detector.

### ***Response to Arguments***

5. Applicant's arguments filed 06/22/2006 have been fully considered but they are not persuasive.

In response to applicant's arguments regarding claims 1, 18 and 26 that a processor for determining the deflection angle of the light as recited by amended claim 1, is not disclosed or suggested by Migeotte in leu of the amendment to claim1, the examiner disagrees. According to col. 6, lines 36-49 the deflection angles are recorded in two or more directions. In addition, recording the sum of angularities (col. 6, lines 48-49) in at least two directions inherently provides an indication of angular direction.

In response to applicants arguments regarding claim 4 that neither Fig. 1 nor the accompanying disclosure discloses or suggests confocally imaging the light after interacting with sheet 12, and that placing an aperture in the beam path fails to disclose or suggest that the light is confocally imaged, that the examiner provides no evidence or line of reasoning to support the assertion that such a feature is disclosed, the examiner disagrees. The confocal imaging of the light is performed by detectors 24 and 28.

In response to applicant's disagreement regarding claim 25 concerning

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whether Migeotte discloses that the light is confocally filtered after the light interacts with the optical article, the examiner disagrees. The limitation regarding the confocal filters are disclosed in col. 6, lines 50-56, where screens (20) and (26) shown in Figs. 2a and 3a, may use light filters in place of mask (8).

In response to applicant's arguments that the examiner has not provided a sufficient rationale for modifying Migeotte to meet the features of claim 8, and has therefore failed to present a *prima facie* case for obviousness, that Migeotte further fails to suggest measuring an index of refraction value of an optical article, the examiner disagrees. Obtaining an index of refraction measurements from transparent materials such as article (12, i.e., sheet) disclosed in Migeotte only require ordinary skill in the art. Having the ability to provide additional optical information and/or properties from the optical article enables the apparatus to provide additional capabilities.

### ***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will

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the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Wyatt whose telephone number is (571)-272-5974. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps can be reached on (571)-272-2328. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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